

Battery Storage Facility, Cellarhead Substation Access Strategy and Construction Traffic Management Plan [VN212155]

Introduction

1. Vectos have been commissioned by C&S Energy Limited to provide an Access Strategy and Construction Traffic Management Plan (CTMP), with associated drawings, in relation to a new 112-unit battery storage scheme off Rownall Road, Cheddleton within Staffordshire Moorlands (**Figure 1**). The site lies within the jurisdiction of Staffordshire County Council (SCC) as the Local Highway Authority.
2. An application was submitted on 4th November 2021 (application reference: SMD/2021/0695) for this site. Prior to the determination of the application, SCC Highways have requested additional information. This document addresses those identified issues, providing further details on site access, construction vehicle movements and identified measures to minimise impact on local amenity and the adjoining highway.
3. This document has been development in conjunction with C&S Energy Limited.

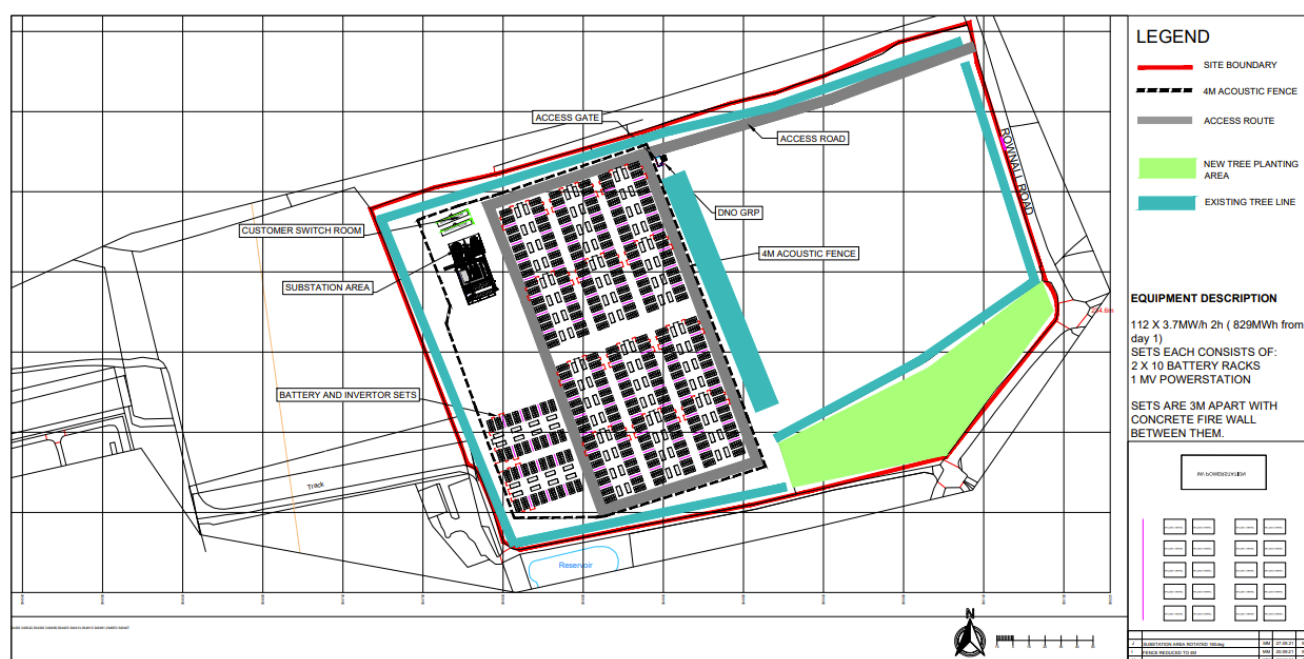


Figure 1 – Site Layout Plan (Source: Avon Utilities and Generation)

Site Access

4. All vehicles (including construction) will access the site via Rownall Road. Rownall Road is a rural road with a carriageway width of between circa. 3.7m – 5.1m in the vicinity of the site. It has large grass verges on both sides and passing spaces. Rownall Road is currently accommodating not only general traffic but also farm traffic (ie. tractors and large farm machinery vehicles), with daily vehicle volumes extremely low.
5. The proposed access road will replace an existing informal field access point and will be designed to accommodate heavy vehicles that will use the access during construction and then will become a field access point for only very occasional maintenance vehicle access. The carriageway width will be 5.0m, with widening at the immediate point of access. The access will be surfaced in either tarmac, concrete or block paving for a minimum of 15.0m off the highway, before transitioning into stone filled Geogrid, or alike. **Drawing VN212155-D100** shows the proposed site access off Rownall Road, including dimensions.
6. **Drawing VN212155-D101** shows the visibility splays at the proposed site access. Rownall Road is subject to the national UK speed limit for unlit roads, therefore visibility splays for 60mph roads have been plotted. However, due to the narrow and rural nature of the road, in reality vehicle speeds will be far lower than the posted 60mph limit and the required sightlines would be significantly reduced. The point of access is already used as an informal field access point, however prior to and during construction on the site all hedges within the visibility splays will be maintained (trimmed back as needed) to a height of 0.6m.
7. A plan showing the construction traffic route in and out of the site is shown in **Figure 2** below. As is shown construction vehicles will enter and exit from the south via the A52 and Rownall Road. All construction vehicle drivers and on-site staff will be made aware of the construction traffic route.

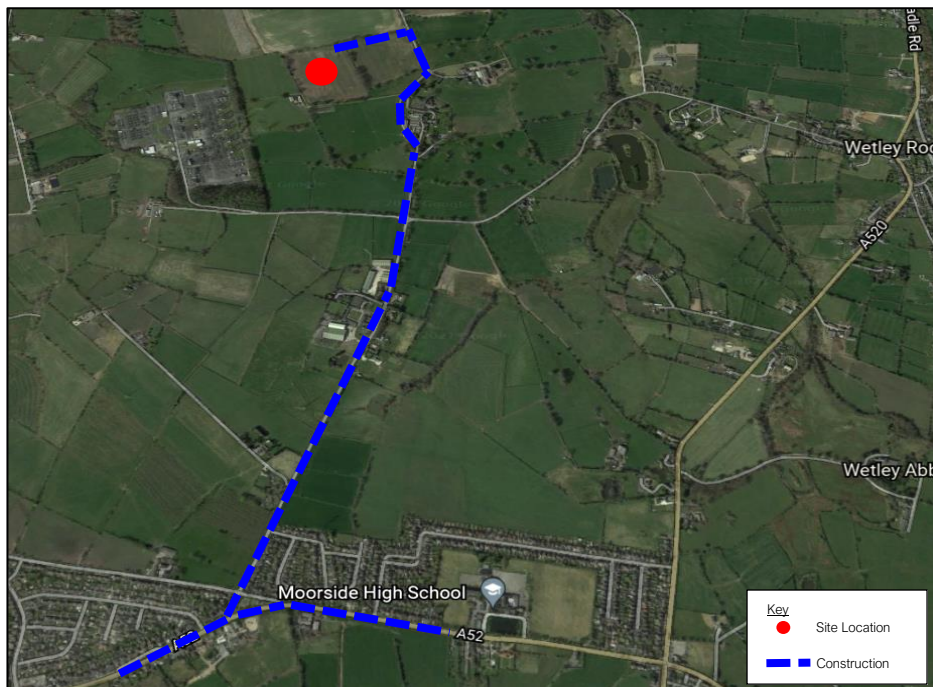


Figure 2 – Construction Traffic Route (Source: Google Earth)

8. There will be a temporary 'Works Access' sign erected at the site entrance that will be visible to construction vehicles approaching along Rownall Road. The sign will advise road users using Rownall Road of the presence of a construction site and associated construction traffic.

Construction Programme

9. The construction programme for the new battery storage facility is anticipated to take a total of 6 months. If these timescales change for some unexpected reason, the Council will be notified by the client/on-site management.

Vehicle Movements

10. The majority of vehicles to be used in the construction of the scheme will be light commercial vehicles, with larger vehicles used for transformers and 32-tonne containerised vehicles used for delivery of the main plant.
11. Vehicles over 8.5m in length ("long vehicle") or over 2.4m in width ("wide vehicle") will be accompanied by a trained banksman. The arrival of all construction vehicles will be organised by on-site management and vehicles will also notify the site manager at least 20 minutes prior to their arrival.
12. It is anticipated that there will be between 7 – 15 vehicles per day; 2-5 Civil Work vehicles and 5-10 BESS Construction vehicles. It must be noted that some construction stages will have significantly fewer vehicle movements than this, and these daily figures represent a worst-case / busiest period scenario. It is expected that across the whole 6-month construction period there will be circa. 300 vehicles.

Vehicle Sizes and Tracking

13. Swept Path Analysis is provided in **Drawing VN212155-TR100** and **Drawing VN212155-TR101**. The tracking has been produced using AutoTrack software overlaid on a detailed topographical survey of Rownall Road, to ensure that the road width and all dimensions are accurate. The swept path analysis shows a Large Tipper and Large Rigid Vehicle (12.0m) accessing and egressing the site. These vehicle types are equivalent to the size of the largest vehicle that will be used on this construction site. The tracking shows that the vehicles are able to negotiate Rownall Road and the site access, with all vehicles able to enter/exit the adopted highway in forward gear.

Impact Control

Dust and Dirt/Mud Control

14. Operations likely to produce nuisance dust (removal of fine, dusty materials) will use water spray solutions to create a fine mist to suppress dust levels across the site. Any such exported material from the site will be transported in HGV vehicles with load covers, although this is not expected to occur.

15. To prevent the transfer of mud onto the local roads site staff will be responsible for cleaning the wheels of any vehicles leaving the site to ensure the entrance and access roads remain clear of debris. Wheel washing will be conducted within the confines of the site and will be in place and operational throughout the period of construction. Given the remote nature of the site and the limited duration of construction operations this is likely to be a portable wheel hosing spray unit or similar.
16. The likelihood of mud transfer onto the adopted highway is further reduced through the design of the site access point as shown in **Drawing VN212155-D100** which includes for a generous amount of hard surfacing on approach and into the site.

Noise and Emission Control

17. Noise will be kept to a minimum at all times by restricting working hours to 08:00 to 18:00 and using low impact and low volume machinery and tools where possible.
18. All vehicle engines will also be turned off when not in use, to reduce emissions as well as minimise noise levels.

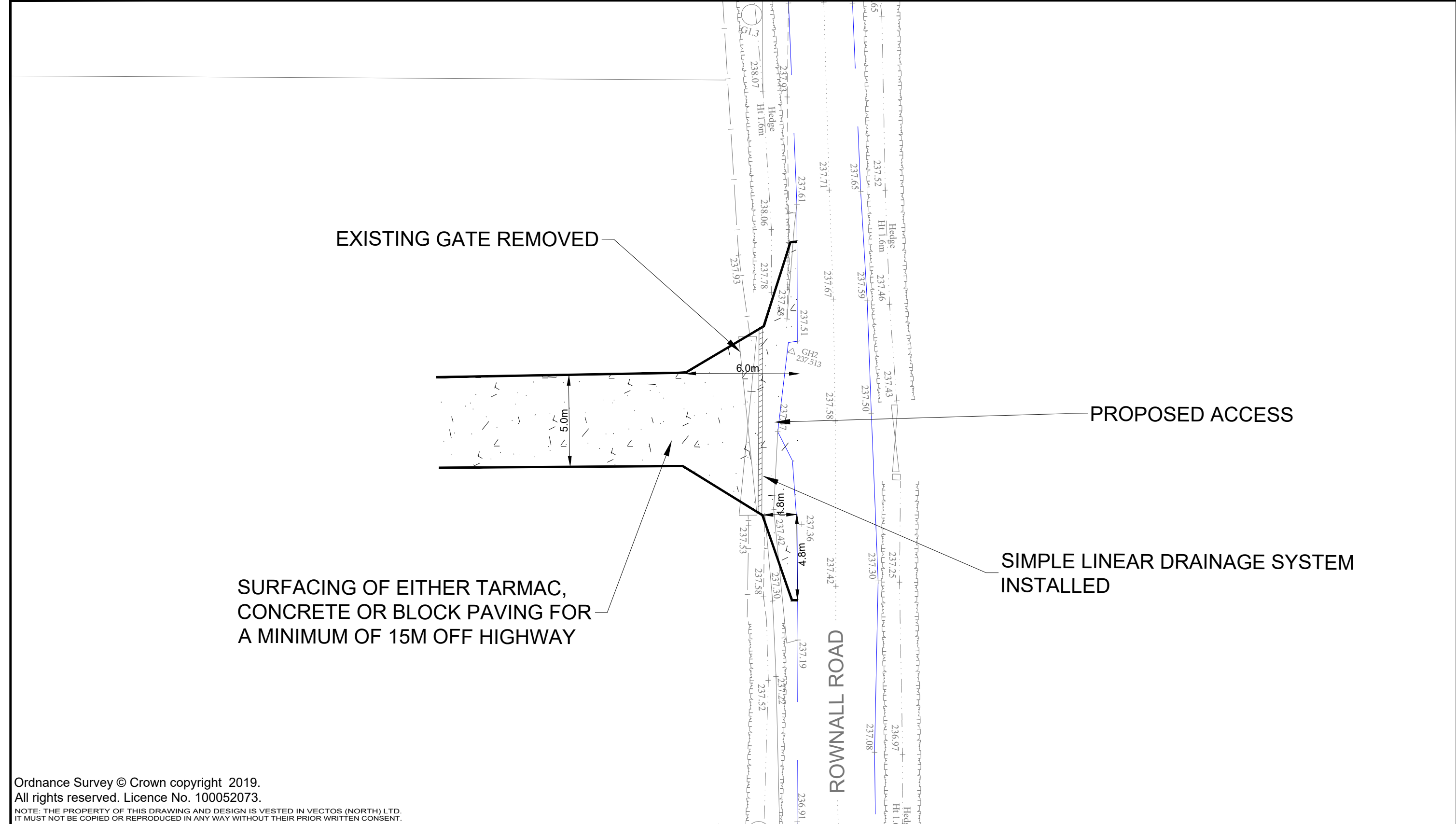
Damage Control

19. As the construction of the battery storage site will involve the movement of heavy vehicles along the narrow country lanes, a dilapidation survey will be undertaken to ensure that the existing condition of the surrounding roads, kerbs and verge is maintained. A dilapidation survey will be undertaken before the commencement of the construction work, in order to assess the pre-construction conditions of the surrounding highway. A post-construction survey will then be undertaken to determine whether any damage or defects were caused by the construction works.
20. This management measure will create a full and provable record and identify any impacts the works have on the surrounding highway. The client would then resolve and fund any damage immediately. SCC Highways Inspectors can take part in the dilapidation surveys if required via liaison with C&S Energy site staff.

Summary

21. Vectos has been commissioned by C&S Energy Limited to provide an Access Strategy and Construction Traffic Management Plan (CTMP) in relation to a new 112-unit battery storage scheme off Rownall Road, Cheddleton.
22. This document is submitted as part of planning application SMD/2021/0695, and sets out the site access arrangements, details of construction vehicle movements and the associated management measures that will be followed whilst building works are underway.
23. The agreement of SCC is sought to this access strategy and mitigations within the CTMP in order to positively determine the planning application for the new battery storage facility off Rownall Road.

Drawings



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REV.	DETAILS	DRAWN	CHECKED	DATE

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.

2. White lining is indicative only.

Carriageway on Rownall Road

Battery Storage Facility, Cellarhead Substation

Proposed Site Access off Rownall Road

DRAWN: EG

CHECKED: MR

DATE: 06.01.22

SCALES: Scale at A3: 1/200

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7 Park Row, Leeds, LS1 5HD

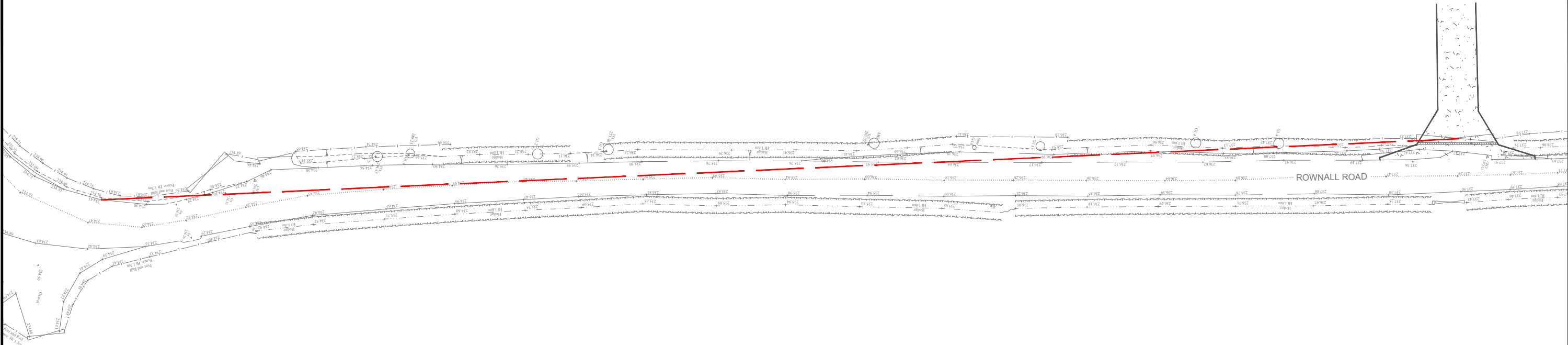
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e: leeds@vectos.co.uk

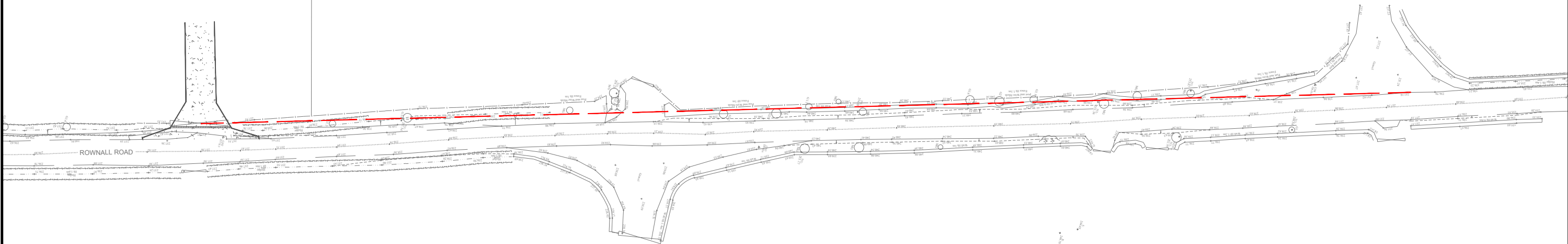
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REVISION:

Visibility to South 2.4m x 172m
Scale 1:500 at A3



Visibility to North 2.4m x 205m
Scale 1:750 at A3



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ALL HEDGES THAT FALL WITHIN VISIBILITY SPLAY WILL BE TRIMMED AND MAINTAINED AT A HEIGHT OF 0.6M.

TREES WITHIN THE VISIBILITY SPLAY TO REMAIN, AS IN ACCORDANCE WITH MANUAL FOR STREETS (MfS), OCCASSIONAL OBSTACLES TO VISIBILITY (SUCH AS TREES) ARE NOT ENOUGH TO FULLY OBSCURE A WHOLE VEHICLE OR PEDESTRIAN

Battery Storage Facility, Cellarhead Substation

Visibility Splays at Proposed Site Access

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0113 512 0293 e: leeds@vectos.co.uk

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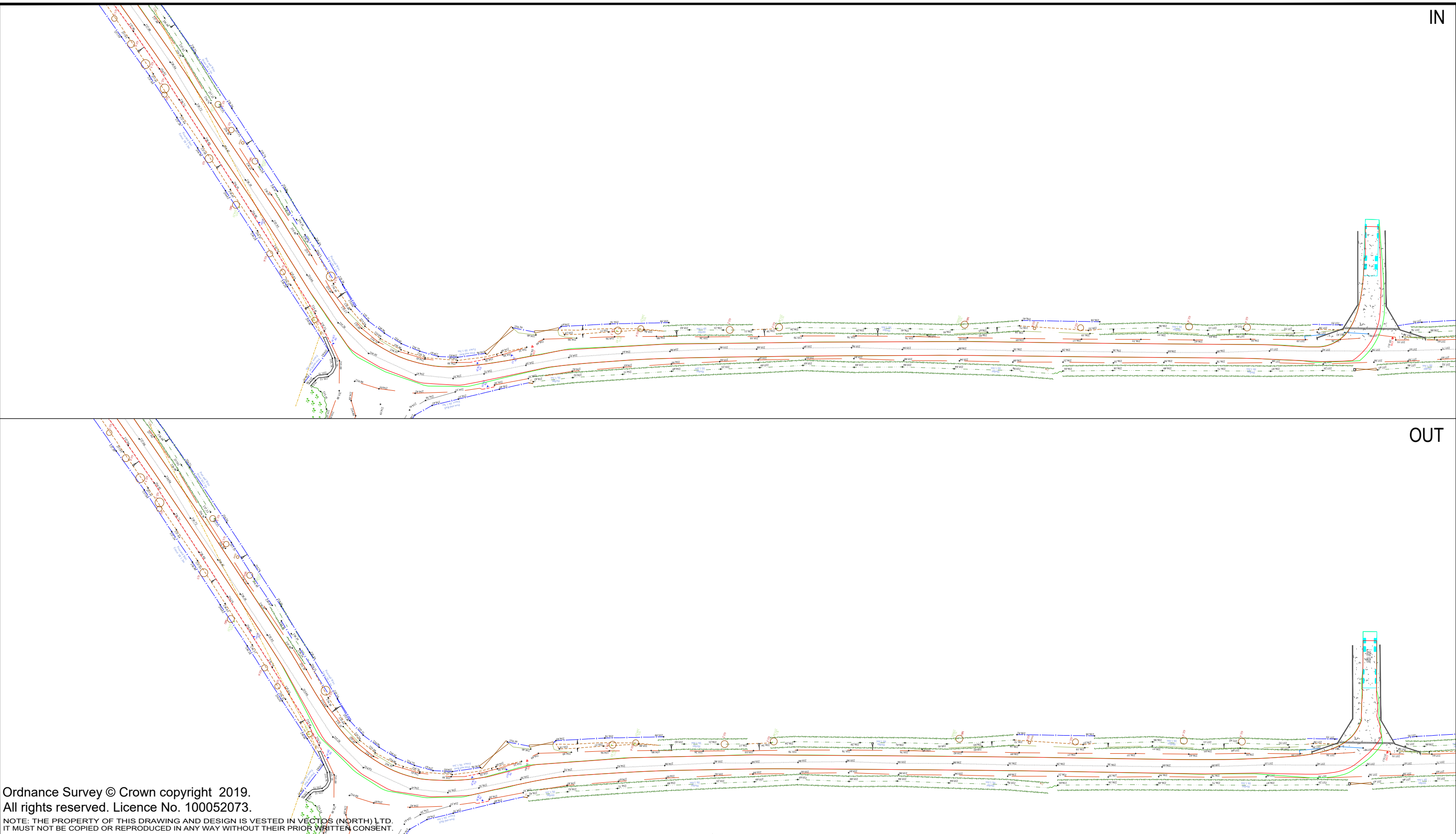
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SCALES: As Stated

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Large Tipper
Overall Length 10.201m
Overall Width 2.495m
Overall Body Height 2.890m
Min Body Ground Clearance 0.341m
Track Width 2.471m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 11.550m

Battery Storage Facility, Cellarhead Substation

Swept Path Analysis: Large Tipper

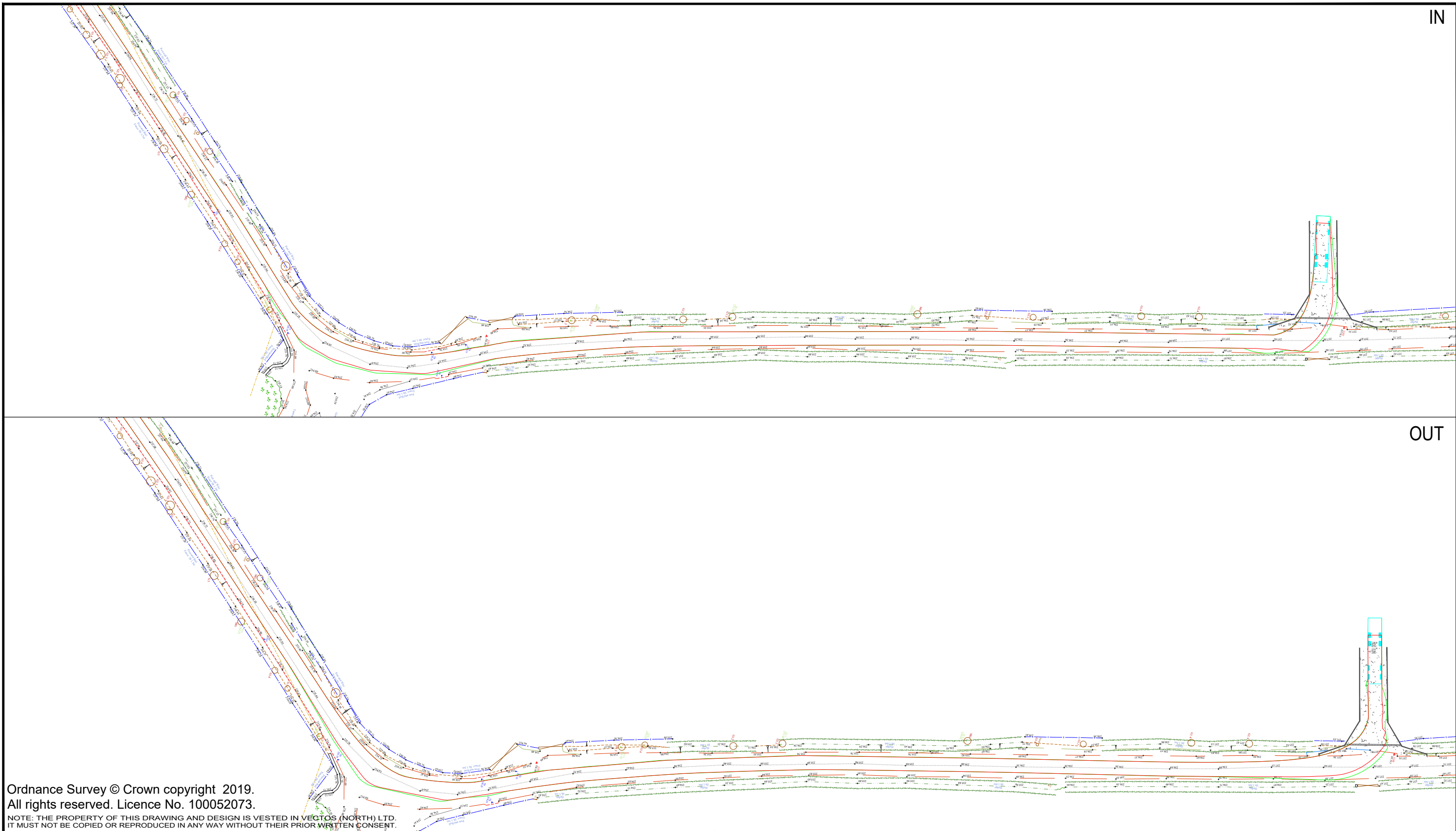
DRAWN: EG	CHECKED: MR	DATE: 06.01.22	SCALES: Scale at A3: 1/750
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DRAWING NUMBER: VN212155- TR100	REVISION:
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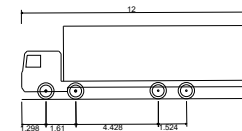
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Rigid Truck
Overall Length 12.000m
Overall Width 2.500m
Overall Body Height 3.920m
Min Body Ground Clearance 0.412m
Track Width 2.471m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 11.900m



Battery Storage Facility, Cellarhead Substation

Swept Path Analysis: Large Rigid Vehicle

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DATE:
06.01.22

SCALES:
Scale at A3: 1/750

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